Check List 8(3): 575-576, 2012
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ISSN 1809-127X (available at *www.checklist.org.br*)

Check List
Journal of species lists and distribution

NOTES ON GEOGRAPHIC DISTRIBUTION

Lamelloporus americanus (Fungi: Polyporales): A new record for Peru

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ABSTRACT: *Lamelloporus americanus*, collected in the vicinity of the community of Vitobamba in the Department of Cusco in southeastern Peru, is reported as new to the country, besides expanding its geographical distribution to the Southern Hemisphere. Description and comments about the apparent distribution pattern of the species are presented.

Lamelloporus Ryvarden is a neotropical and monospecific genus represented by *L. americanus* Ryvarden (Ryvarden 1987). This species belongs to the family Meruliaceae P. Karst. (Polyporales Gäum.) and is characterized by a concentrically lamellate hymenophore, unlike other Polyporales species. The cartilaginous context with concentric dark and dense zones is another good characteristic to identify this species in the field. Initially, the species was described with distribution to Southern Mexico and Venezuela (Ryvarden 1987). In Mexico, it was collected in Veracruz (type and isotype in O and XAL Herbaria, respectively, Ryvarden 1987) and recently in Hidalgo (Romero-Bautista *et al.* 2010). In Central America the species was recorded in Panama (Guzmán and Piepenbring 2011) and Costa Rica (Mata *et al.* 2007). In South America was recorded in Venezuela (Ryvarden 1987) and Ecuador (Læssøe and Petersen 2008).

The Peruvian specimen of *L. americanus* [C.A. Salvador-Montoya 111, 11.III.2010 (USM 239483, FLOR), on decaying wood] was collected in the vicinity of the community of Vitobamba (10°40'5.58" W, 76°42'6.94" N, from 1000 to 1500 m a.s.l.), in the District of Camanti, Department of Cusco. This locality is composed of typical pre-montane forest with mostly evergreen, woody vegetation with up to 40 m high trees and large palms. Microscopical examination was achieved from freehand sections of specimens and mounted in Melzer's reagent to determine the presence (dextrinoid or amyloid) or absence of reaction. All microscopic measurements (n = 40) and basidiospores drawings were made in KOH5% with 1% aqueous phloxine solution. The arithmetic mean of the measurements of the tested materials is given in the description. The isotype [Mexico, Veracruz: Mpio. de Jalacingo, Barranca, Cruz Blanca (bosque de *Ulmus*, 1500 m a.s.l.), F. Ventura 7428 21.XI.1972, XAL] was analyzed as additional comparative material. Nomenclature follows Index Fungorum (http://www. Indexfungorum.org/Names/Names.asp). Duplicate specimens were deposited in the San Marcos Herbarium (USM) of the Universidad Nacional Mayor de San Marcos in Lima, Peru and in the mycological collection of the FLOR Herbarium of the Universidade Federal de Santa Catarina in Florianópolis, Santa Catarina state, Brazil. Authorization for collections (RD 0202-2010-AG-DGFFS-DGEFFS) and export permits (003923-AG-DGFSS) were granted by the Directorio General de Flora y Fauna Silvestre (DGFFS) of Peru.

Lamelloporus americanus Ryvarden 1987, Mycotaxon 28(2): 529 (1987). (Figure 1A-D).

Basidioma pileate, spathulate with a lateral tapering base, up to 2.2 cm long, 1.7 cm wide and 0.35 cm thick, soft when fresh and hard when dry; upper surface white to pale brown, glabrous, smooth to rough at base, with indistinct concentric zones at the edge; margin thin, straight, wavy in dried specimens. Hymenial surface concentrically lamellate, white, thicker towards base, up to 0.2 cm deep. Context soft when fresh, cartilaginous when dry, white when fresh to dark brown with numerous concentric dark zones when dry, xanthocroic reaction negative.

Hyphal system dimitic, generative hyphae hyaline with clamps, skeletal hyphae hyaline, thick-walled to solid. Cystidia cylindrical, (17) 20-33 x 4-6 µm from subhymenium, smooth, apparently with thickened walls and rounded apex, projecting up to 20 µm from hymenium. Basidia clavate, 10-14 x 4-5 µm, with four sterigmata. Basidiospores ellipsoid, 2.5-4 x 1.5-2 µm, with eccentric droplets, smooth, hyaline, thin-walled, IKI-.

This species is easily recognized by its white basidiome with concentrically lamellate pore surface and cartilaginous context with concentric dark and dense zones (Ryvarden 1987). The Peruvian material presents basidiospores slightly smaller than those described by Ryvarden (1987, 3-4 x 2-2.5 µm), as observed by us in the isotype material.

This saprophytic species has been collected most frequently in Central America and Mexico (Ryvarden 1987, Mata *et al.* 2007, Romero-Bautista *et al.* 2010, Guzmán

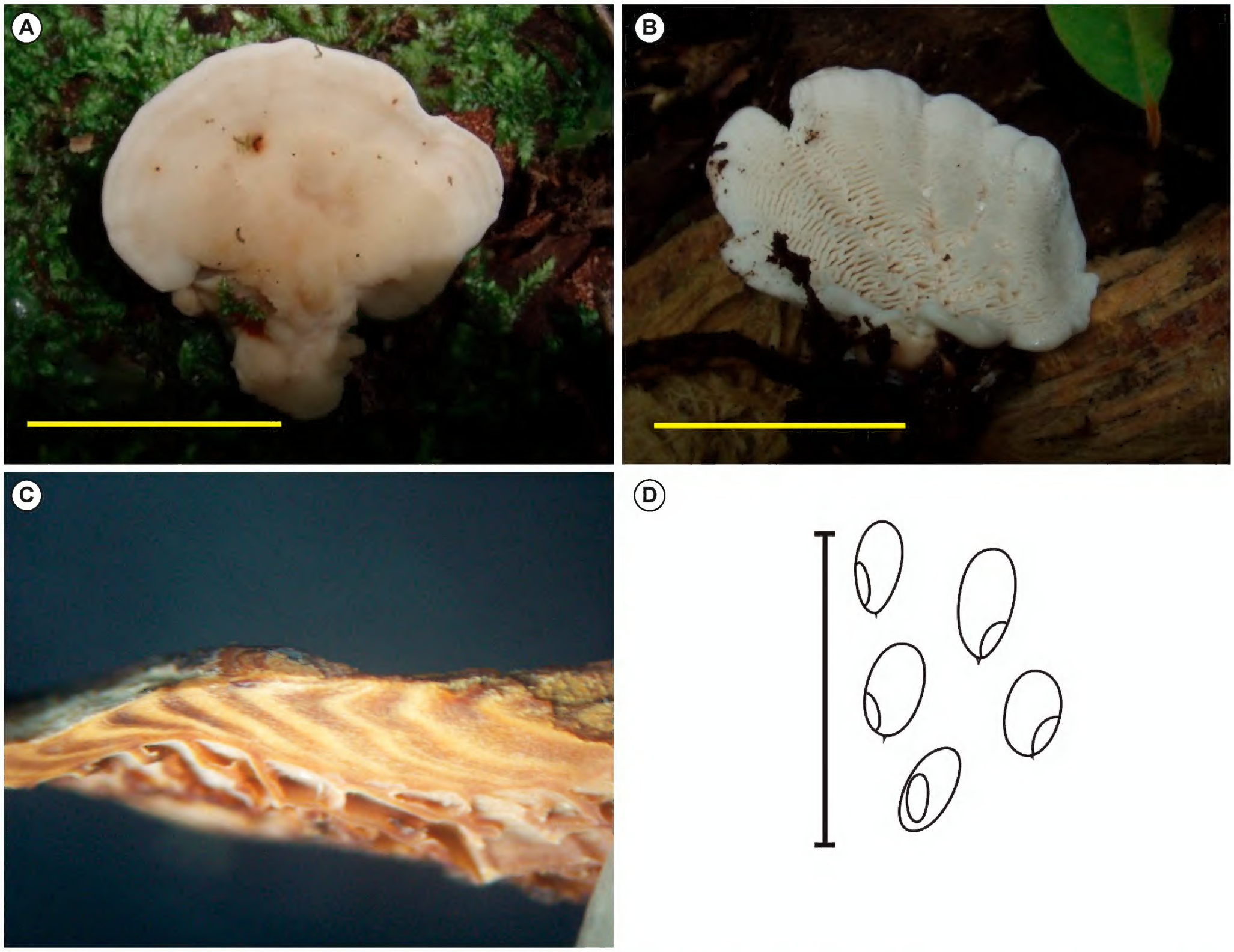

Figure 1. *Lamelloporus americanus* (USM 239483). (A) upper surface of basidioma; (B) himenial surface of basidioma; (C) context dense and zonate; (D) basidiospores [scale: (A), (B) = 1 cm; (D) = 10 µm].

and Piepenbring 2011). In Mexico, it has been found in deciduous and evergreen tropical forests (Ryvarden 1987, Romero-Bautista *et al.* 2010, respectively). Unfortunately, the collection records of *L. americanus* from Costa Rica and Panama do not provide sufficient data about forest habitat type (Mata *et al.* 2007, Gusmán and Piepenbring 2011, respectively). In South America, this species has been documented from the Uei-Tepui mountains of the high plateau of the Gran Sabana of Venezuela (Ryvarden 1987) and in a montane forest of Maldonado, Ecuador (Læssøe and Petersen 2008). In this context, this new record of *L. americanus* from Peru, collected in submontane, moist to pluvial forest, expands the geographical distribution of this species to a mountainous region of the southern rim of the upper Amazon. With the exception of the Panamanian record, which does not include information about the vegetation type and altitude, the other specimens from Costa Rica, Ecuador, Mexico, Venezuela, and Peru were collected in submontane to montane forest above 1000 m a.s.l. This fact suggests that *L. americanus* exhibits a distribution restricted mostly to neotropical mountain cloud forests as described by Kappelle and Brown (2001). Future collections will provide more insight on this apparent distribution pattern.

Acknowledgments: Field research was possible by the generous support of the Botanical Research Institute of Texas (BRIT) and the US National Science Foundation (NSF) grant #0717453 to BRIT. Coordenação de Aperfeiçoamento Pessoal de Nível Superior – CAPES granted to the last author as a post-doctoral scholarships (CAPES/REUNI/UFSC). This work is part of the project "Diversidad y aspectos ecológicos de los hongos lignolíticos del Perú – PolíporosPERU" (Depto. Botânica/UFSC n° 2011.1023).

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Received: February 2012
Accepted: April 2012
Published online: June 2012
Editorial responsibility: Matias J. Cafaro